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EXAMINER

DESIR, PIERRE LOUIS

ART UNIT

PAPER NUMBER

2617

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/646,779

Applicant(s)

SANCHEZ, RAQUEL

Examiner

Pierre-Louis Desir

Art Unit

2617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 January 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-46 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-46 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1, 16, and 32 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The independent claims have been amended to include, "...directly through the selected at least one network element." This amendment further specifies how transmission is being made. Therefore, this amendment represents new matter since it was not described in the specification.

Response to Arguments

2. Applicant's arguments filed on 01/25/2007 have been fully considered but they are not persuasive.

Applicants argue that Kikuchi does not allow transmission of the request from the clients 2a, 2b, and 2c (pool user) directly towards the selected server 1a, or 1b while bypassing the switch 3. Also, as related to Turina, Applicants argue that Turina discloses that the

predetermined request to be provided is transmitting a paging message from the pool user to a predetermined user equipment indirectly through the access network.

Examiner respectfully disagrees with Applicants. Applicants based the arguments on the disclosure of Kikuchi that the selecting step is to be performed by a request distribution 5 that operates to select the most suitable server from the server pool and to send the request to the selected server 1a or 1b. However, Kikuchi also disclosed that the client communication control unit 4 receives the Bind request of establishing the LDAP connection from the client, when the control unit 4 returns a response of indicating a success of establishing the connection to the client without sending the request to any one of the servers. This makes it possible to establish the LDAP connection between the client and the switch. When the client communication control unit 4 receives a request except for a Bind or an Unbind from the client, the request distributing unit 5 operates to select the most suitable server to the processing from the server pool and then send the request to the selected server (see paragraphs 33, 38 and 39). Thus, if the request is a bind or and unbind from the client, the request distributing unit 5 does not make the selection.

And Turina discloses the pool 10 consists of a plurality of mobile switching apparatuses 12-1, 12-2, . . . , 12-n which are connected via a bus 14 to a pool controller 16. The pool controller is connected via a second bus 18 to a capability data base 20 and to the access network, i.e., to the access nodes comprised in the access network (paragraph 83). Also, the mobile switching apparatus according to the present invention comprises a pool relay unit 28, a pool interface unit 30, and a signaling and switching unit 32. The pool relay unit 28 divides into a mobile terminal identification unit 34, a mobile switching apparatus selection and retrieval unit 36, and a paging response modification unit 38. As also shown in FIG. 3, the signaling and

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switching unit 32 is connected via a bus 40 to the pool relay unit 28 for communication unit with all components 34 to 38 of the pool relay unit 28. Further, the pool interface unit 30 is connected via a bus 42 to the pool relay unit 28 for communication with all components 34 to 38 of the pool relay unit 28 and via the bus 14 to the pool controller 16 and the pool data base 24. The pool interface unit 30 also enables the exchange of data to the other mobile switching apparatuses in the pool 10 (paragraphs 92-93). And that the mobile switching apparatuses supports a pool concept and having the capability of relaying a paging request issued by a mobile switching apparatus of the pool and a paging response received by a mobile switching apparatus of the pool (paragraph 31). Thus, in Turina, the relay unit is part of and within the mobile switching apparatus. Therefore, any request issued by the mobile switching apparatus and a paging response received by the mobile switching apparatus are being done by the pool relay unit. Therefore, this is a direct communication between the mobile subscriber and the mobile switching apparatus.

This response also applies to applicants' arguments as related to Artola, Ho, Chuah, and Musikka.

In response to applicants' arguments as related to Ho and Chuah, it appears that Applicants are arguing against the references individually. Therefore, Examiner respectfully reminds Applicants that one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-3, 6, 10, 16-18, 21, 25, 28, 32-34, 37, and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kikuchi in view of Turina et al. (Turina), U.S. Patent No. 6826198.

Regarding claim 1, Kikuchi discloses a method for choosing a network element of a mobile telecommunication network from a plurality of network elements in order to provide a predetermined service (see abstract), comprising: choosing a server, the server comprising the plurality of network elements of the mobile telecommunication network, all of which provide the same predetermined service (i.e., when the switch is started, the connection managing unit establishes the LDAP connection with each server belonging to the server pool. Thus, a server pool is inherently chosen or selected so that the connection unit can establish the LDAP connection with each server belonging to the selected server) (see fig. 6, and paragraphs 2, 33, 62, and 75. Also refer to the description of fig. 8), defining a pool handle, wherein a pool handle is a name which identifies the server (i.e., reference number 38 denotes a pool identifier for uniquely identifying each server pool) (see figs. 8-9, page 3, paragraph 55), and providing a name server for handling any requests from a pool user to the identified server (i.e., the connection managing unit reads the server name described at the head of the server pool

definition file, builds up a Bind request of establishing the LDAP connection with the server, and requests the server communication control unit to send the server) (see fig. 6, page 2, paragraph 33, and paragraphs 62 and 75), wherein the name server identifies a request to the identified server by means of the pool handle (see fig. 8, pages 3-4, and paragraph 60), establishes a connection with each network element of the identified server (see fig. 8, pages 3-4, and paragraph 8, and paragraphs 33, 62, and 75), and selects according to predetermined criteria at least one network elements amongst the plurality of network elements of the identified server for providing the predetermined service requested by the pool user (see fig. 8, pages 3-4, and paragraph 8, and paragraphs 33, 62, and 75).

Although Kikuchi discloses a network as described, Kikuchi does not specifically disclose a network wherein the plurality of network elements are radio network controllers, the request to be handled is a paging request from a core network element acting as a pool user, and the predetermined service to be provided is transmitting a paging message from the pool user to a predetermined user equipment directly through the selected at least one network element.

However, Turina discloses a method and a network wherein the plurality of network elements are radio network controllers according to the UMTS standard (i.e. third generation radio network controllers) (see paragraph 8), the request to be handled is a paging request from a core network element acting as the pool user (see abstract, page 2, and paragraph 31), and the predetermined service to be provided is transmitting a paging message from the pool user to a predetermined user equipment directly through the selected at least one network element (i.e. paging response) (see response to argument's above, and fig. 3, abstract, paragraphs 31, 92-96).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings as described by Turina with the teachings as described by Kikuchi to arrive at the claimed invention. A motivation for doing so would have been to provide dynamic system capability.

Regarding claim 16, Kikuchi discloses a network comprising a server having a plurality of network elements of the mobile telecommunication network, all of which provide a same predetermined service (see abstract, fig. 6, and paragraphs 2, 33, 62, and 75. Also refer to the description of fig. 8), a pool handle, wherein a pool handle is a name, which identifies the server pool (i.e., reference number 38 denotes a pool identifier for uniquely identifying each server pool) (see figs. 8-9, page 3, paragraph 55), and a name server configured to handle requests from a pool user to the identified server, wherein the name server is configured to identify a request to the identified server by means of the pool handle (see fig. 6, page 2, and paragraphs 33, 62, and 75), to establish a connection with each network element of the identified server (see fig. 8, pages 3-4, and paragraph 8, and paragraphs 33, 62, and 75), and select according to predetermined criteria at least one network elements amongst the plurality of network elements of the identified server for providing the predetermined service requested by the pool user (see fig. 8, pages 3-4, and paragraph 8, and paragraphs 33, 62, and 75).

Although Kikuchi discloses a network as described, Kikuchi does not specifically disclose a network wherein the plurality of network elements are radio network controllers, the request to be handled is a paging request from a core network element acting as a pool user, and the predetermined service to be provided is transmitting a paging message from the pool user to a predetermined user equipment directly through the selected at least one network element.

However, Turina discloses a method and a network wherein the plurality of network elements are radio network controllers according to the UMTS standard (i.e. third generation radio network controllers) (see paragraph 8), the request to be handled is a paging request from a core network element acting as the pool user (see abstract, page 2, and paragraph 31), and the predetermined service to be provided is transmitting a paging message from the pool user to a predetermined user equipment directly through the selected at least one network element (i.e. paging response) (see response to argument's above, and fig. 3, abstract, paragraphs 31, 92-96).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings as described by Turina with the teachings as described by Kikuchi to arrive at the claimed invention. A motivation for doing so would have been to provide dynamic system capability.

Regarding claim 32, Kikuchi discloses a network allowing choice of a network element from a plurality of network elements in order to provide a predetermined service (see abstract), comprising choosing means for choosing a server, the server comprising the plurality of network elements of the mobile telecommunication network, all of which provide the same predetermined service (see abstract, fig. 6, and paragraphs 2, 33, 62, and 75. Also refer to the description of fig. 8), defining means for defining a pool handle, wherein a pool handle is a name which identifies the server (see figs. 8-9, page 3, paragraph 55), and name serving means for serving handling requests from a pool user to the identified server, wherein the name serving means identifies a request to the identified server by means of the pool handle (see fig. 6, page 2, and paragraphs 33, 62, and 75), establishes a connection with each network element of the identified server (see fig. 8, pages 3-4, and paragraph 8, and paragraphs 33, 62, and 75), and selects according to

predetermined criteria at least one network elements amongst the plurality of network elements of the identified server for providing the predetermined service requested by the pool user (see fig. 8, pages 3-4, and paragraph 8, and paragraphs 33, 62, and 75).

Although Kikuchi discloses a network as described, Kikuchi does not specifically disclose a network wherein the plurality of network elements are radio network controllers, the request to be handled is a paging request from a core network element acting as a pool user, and the predetermined service to be provided is transmitting a paging message from the pool user to a predetermined user equipment directly through the selected at least one network element.

However, Turina discloses a method and a network wherein the plurality of network elements are radio network controllers according to the UMTS standard (i.e. third generation radio network controllers) (see paragraph 8), the request to be handled is a paging request from a core network element acting as the pool user (see abstract, page 2, and paragraph 31), and the predetermined service to be provided is transmitting a paging message from the pool user to a predetermined user equipment directly through the selected at least one network element (i.e. paging response) (see response to argument's above, and fig. 3, abstract, paragraphs 31, 92-96).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings as described by Turina with the teachings as described by Kikuchi to arrive at the claimed invention. A motivation for doing so would have been to provide dynamic system capability.

Regarding claims 2, 17, and 33, Kikuchi discloses a method and network comprising steps and means as described above (see claims 1, 16, 32 rejections).

Although Kikuchi discloses a method and a network as described, Kikuchi does not specifically disclose a method and a network wherein the radio network controllers are according to the UMTS standard, and the core network element is one of a mobile services switching center and a serving GPRS support node.

However, Turina discloses a method and a network wherein the plurality of network elements are radio network controllers according to the UMTS standard (i.e. third generation radio network controllers) (see paragraph 8), the request to be handled is a paging request from a core network element acting as a pool user (see abstract, page 2, and paragraph 31), where the core network element is one of a mobile services switching center and a serving GPRS support node (i.e., mobile switching apparatus) (see abstract, page 2, paragraph 31), and the service to be provided is transmitting a paging message to a predetermined user equipment (i.e. paging response) (see abstract, page 2, paragraph 31).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings as described by Turina with the teachings as described by Kikuchi to arrive at the claimed invention. A motivation for doing so would have been to provide dynamic system capability.

Regarding claims 3, 18, and 34, Kikuchi discloses a method and network as described above (see claims 2, 17, and 33 rejections).

Although Kikuchi discloses a method as described, Kikuchi does not specifically disclose a method wherein the name server identifies the predetermined user equipment by an user equipment identification, with the user equipment identification is one of a temporary identity of

the user equipment and a subscriber identity stored on a subscriber identity module associated with the user equipment.

However, Turina discloses a method wherein the name server identifies the predetermined user equipment by an user equipment identification, with the user equipment identification is one of a temporary identity of the user equipment and a subscriber identity stored on a subscriber identity module associated with the user equipment (i.e., mobile station originating signaling messages are distributed to different mobile switching centers MSC on the basis of the subscriber identity comprised in a signaling message. Thus, one skilled in the art would unhesitatingly conceptualize that a signaling message router or distributor routes or distributes signaling message to the serving mobile switching center by using the subscriber unit's (temporary) identification number assigned) (see page 2, paragraph 26).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teaching as described to ensure that the signaling message is routed or distributed to the proper mobile switching center accordingly.

Regarding claims 6, 21, and 37, Kikuchi discloses a method and a network as described above (see claims 2, 17, and 33 rejections).

Although Kikuchi discloses a method as described, Kikuchi does not specifically disclose a method wherein the name server selects according to a predetermined algorithm one radio controller from the radio controllers, which are capable of transmitting a paging message to predetermined user equipment.

However, Turina discloses a method wherein a relay unit comprises a selection unit configured to specify a mobile switching apparatus in the pool handling response according to a specified selection algorithm (see page 3, paragraph 42).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings as described by Turina with the teachings as described by Kikuchi to arrive at the claimed invention. A motivation for doing so would have been to ensure that the signaling message is routed or distributed to the proper mobile switching center accordingly.

Regarding claim 10, 25, and 41, Kikuchi discloses a method and a network as described above (see claims 2, 16, and 33 rejections).

Although Kikuchi discloses a method and a network as described, Kikuchi does not specifically disclose a method and a network wherein the radio controller sends information to the name server containing an identification of the selected radio controller and of the predetermined user equipment after having performed paging to the predetermined user equipment.

However, Turina disclose a method and a network wherein the mobile switching apparatus may then inform all mobile switching apparatuses in the pool about the received mobile subscriber identity so that the one mobile switching apparatus that initiated the global paging message may, e.g., respond to the receiving mobile switching apparatus with its mobile switching identity for relaying the response to a global paging message thereto (see paragraph 47).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings as described by Turina with the teachings as described by Kikuchi to arrive at the claimed invention. A motivation for doing so would have been to provide dynamic system capability.

Regarding claim 28, Kikuchi discloses a network as described above (see claim 16 rejection).

Although Kikuchi discloses a network as described, Kikuchi does not specifically disclose a network wherein the selected radio controller is configured to indicate to the name server that a connection between the predetermined user equipment and the selected radio controller is terminated and the name server is configured to change the mapping between the predetermined user equipment and the selected radio controllers in response to the indication from the selected radio controller.

However, Turina discloses a method and a network (see claims 11, and 42 rejections) wherein related data for mobile switching apparatus and access nodes linked to the router apparatus may be preferably periodically updated (see paragraph 142, and refer to claim 11 rejection). Thus, one skilled in the art would immediately envision that as a mobile attaches or detaches to/from a mobile switching apparatus, information contained in the MSC has to be updated accordingly.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings as described to arrive at the claimed invention. A motivation for doing so would have been to ensure the proper identification of the mobile apparatus handling the paging response.

5. Claims 4, 19, and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kikuchi and Turina in further view of Artola et al. (Artola), International Publication No. WO 02/071776.

The combination discloses a method and a network as described above (see claims 2, 17, and 33 rejections).

Although the combination discloses a method and a network as described, the combination does not specifically disclose a method and a network wherein the name server accesses a location area or a routing area, which indicate the area in which the user equipment is currently located, and selects a radio controller which is close enough to the user equipment for transmitting a paging message to predetermined user equipment.

However, Artola discloses a method and a network wherein the name server accesses a location area or a routing area, which indicate the area in which the user equipment is currently located, and selects a radio controller which is close enough to the user equipment for transmitting a paging message to predetermined user equipment (i.e., the controller BSC2 can be a BSC or RNC for a GSM or UMTS system, respectively, and may execute a selection S130 of one of the network servers MSC1; MSC2 in the server pool CNP. The controller BSC2 may use a list that comprises the network servers MSC1; MSC2 in the server pool CNP. For the selection S130 of one of the network servers MSC1; MSC2, the controller BSC2 may take into account location information of the mobile device MS, of the controller BSC2 or of one or more of the network servers MSC1; MSC2) (see page 20, lines 10-17).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings as described in Kikuchi and Turina with the teachings as specified by Artola to arrive at the claimed invention. A motivation for doing so would have been to ensure that the mobile device is linked with the proper network servers, which would maximize its communication potential as related to resources.

6. Claims 5, 7, 11-13, 20, 22, 26-27, 36, 38, 42-44, are rejected under 35 U.S.C. 103(a) as being unpatentable over Kikuchi and Turina in further view of Ho et al. (Ho), U.S. Patent No. 6091953.

Regarding claims 5, 20, and 36, the combination discloses a method and a network as described above (see claims 2, 17, and 33 rejections).

Although the combination discloses a method and a network as described, the combination does not specifically disclose a method and a network wherein the name server checks whether the predetermined user equipment is assigned to a particular radio controller and selects the particular radio controller for paging.

However, Ho discloses a method and a network wherein during an operation in which a signaling message is sent by a base station controller on behalf of the mobile unit, the message router then extracts the temporary ID, determines the serving mobile switching center from the temporary ID, and routes the signaling message to the serving mobile switching center. The serving mobile switching center then may service the mobile unit, based upon the signaling message content (see col. 3, lines 10-19).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings as described by ho with the teachings as described by Kikuchi and Turina to arrive at the claimed invention. A motivation for doing so would have been to substantially reduce subscriber mobility overhead (see col. 3, lines 55-56).

Regarding claims 7, 22, and 38, the combination discloses a method and a network as described above (see claims 6, 21, and 37 rejections).

Although the combination discloses a method and a network as described, the combination does not specifically disclose a method and a network wherein the one radio controller is selected using an algorithm for balancing loads of the radio controllers.

However, Ho discloses a method and a network wherein base station controllers initially assign mobile units to the mobile switching centers to balance load (see col. 3, lines 40-42) using an algorithm (see col. 23, lines 64-67).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings as described to arrive at the claimed invention. A motivation for doing so would have been to increase the system capacity (see col. 3, lines 52-54).

Regarding claims 11, 26, and 42, Kikuchi and Turina disclose a method and a network as described above (see claims 2, 16, 33 rejections).

Although Kikuchi and Turina disclose a method and a network, Kikuchi and Turina do not specifically disclose a method and a network wherein the name server stores a mapping between the predetermined user equipment and the selected radio controllers.

However, Ho discloses a method and a network wherein a message router stores a small table which maps the MSC ID to a network address that can be used to direct signaling message

to the serving MSC (see col. 8, lines 34-37). Thus, with the MSC ID mapping to a network address, inherently the router stores a mapping between the mobile unit and the serving MSC.

Therefore, it would have been obvious to one skilled in the art at the time of the invention to combine the teachings as described by Ho with the teachings described by Kikuchi and Turina to arrive at the claimed invention. A motivation for doing so would have been to provide a method with capability to store signaling association attributes--used in the context of addressing of signaling messages.

Regarding claims 12, 27, and 43, Turina discloses a method and a network (see claim 11, 16, and 42 rejection) wherein a pool consist of a plurality of mobile switching apparatus, which are connected via a bus to a pool controller, wherein the bus may be any type of link, e.g., circuit oriented connection, packet oriented connection. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings as disclosed by Kikuchi and Turina with the teachings as described by Ho to arrive at a method wherein the mapping information would also contain information for circuit and packet oriented communications to ensure the proper functioning in both domains (circuit-switched and packet-switched).

Regarding claims 13, and 44, Turina discloses a method and a network (see claims 11, and 42 rejections) wherein related data for mobile switching apparatus and access nodes linked to the router apparatus may be preferably periodically updated (see paragraph 142, and refer to claim 11 rejection). Thus, one skilled in the art would immediately envision that as a mobile attaches or detaches to/from a mobile switching apparatus, information contained in the MSC has to be updated accordingly.

7. Claims 8-9, 23-24, 39-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kikuchi and Turina in further view of Chuah, Pub. No. US 20030076803.

Regarding claims 8, 23, and 39, Kikuchi and Turina disclose a method and a network as described above (see claims 6, 21, and 37 rejections).

Although the combination discloses a method and a network as described, the combination does not specifically disclose a method and a network wherein the name server creates a ranking list of the radio controllers capable of transmitting a paging message to the predetermined user equipment, wherein a first radio controller in the list is a most favorable to perform paging and a last radio controller in the list is a least favorable to perform paging.

However, Chuah discloses a method and a network comprising maintained RNC list. Using the maintained RNC list which can reflect the priority of the RNCs for each particular Nodeb (see page 3, paragraph 22). Thus, one skilled in the art would unhesitatingly conceptualize that by having a list, which can reflect the priority (or ranking) of the RNCs, that the maintained list would inherently comprise a most favorable and least favorable RNC for communication.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to include a ranking or priority list to identify appropriate radio controllers for assignment because it would facilitate the determination of which controller to use as related to the improvement of load balancing (see abstract).

Regarding claims 9, 24, and 40, Kikuchi and Turina disclose a method and a network as described above (see claim 8, 23, 39 rejections).

Although the combination discloses a method and a network as described, the combination does not expressly disclose a method and a network wherein an identity of the selected radio controller or the ranking list of the radio controllers is sent to the core network elements acting as the pool user.

However, as described above, Chuah discloses a RNC list, which reflect priority of the RNCs (see paragraph 22), wherein the Nodeb decide how to route requests using RNC assignment system, and once the RNC is assigned, communication can be accomplished (see page 3, paragraphs 22-23). Thus, one skilled in the art would immediately envision that once the RNC is selected, the RNC must be inherently identified to the network for communication to take place.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to implement the teachings as described by Chuah with the teachings described by Kikuchi and Turina to arrive at the claimed invention. A motivation for doing so would have been to ensure proper routing of communication, which would increase system capacity.

8. Claims 14, 29, and 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kikuchi in view of Musikka et al. (Musikka), US pub. No. 20010030941.

Kikuchi discloses a method and a network as described above (see claims 1, 16, and 32 rejections).

Although Kikuchi discloses a method and a network as described, Kikuchi does not specifically disclose a method and a network wherein the plurality of network elements are a plurality of gateway servers of an Internet Protocol based radio access network, wherein the

Internet Protocol based radio access network is one of radio access network gateways and circuit switched gateways, and the pool user is a Radio access network access server.

However, Musikka discloses a method and a network comprising of a plurality of gateway servers of an Internet protocol based radio access network (i.e., network elements) (see figs. 2A-2B, page 2, paragraph 20), wherein the Internet protocol based radio access network is one of radio access network gateways and circuit switched gateways (i.e., IP-based BSS components) (see page 2, paragraph 20), and a radio access network access server (i.e., RNS) (see page 2, paragraph 20).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings as described to arrive at the claimed invention. A motivation for doing so would have been to ensure high availability of network elements especially during catastrophic events (see abstract).

9. Claims 15, 30-31 and 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kikuchi in view of Artola.

Kikuchi discloses a method and a network as described above (see claims 1, 16, and 32 rejections).

Although Kikuchi discloses a method and a network as described, Kikuchi does not specifically disclose a method and a network wherein the plurality of network elements are network servers serving GPRS support nodes or gateway GPRS support nodes, nor does he disclose a network wherein the name server constitutes a core network node such as a serving GPRS node, a home location register or a mobile services switching center.

However, Artola discloses a method and a network wherein the network servers in the server pool are serving general packet radio service support nodes (SGSNs) (see page 13, lines 10-12).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings as described to arrive at the claimed invention. A motivation for doing so would have been to provide a node capable of accomplishing the full set of interworking with the connected radio network.

Conclusion


10. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pierre-Louis Desir whose telephone number is (571) 272-7799. The examiner can normally be reached on Monday-Friday 8:00AM- 5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Feild can be reached on (571) 272-4090. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Pierre-Louis Desir
04/10/2007



JOSEPH FEILD
SUPERVISORY PATENT EXAMINER